

CLAIMS

Please cancel claims 3, 17, and 28 without prejudice or disclaimer and please amend the claims and add new claims as shown in the following claim listing.

1. (Currently amended) A system comprising:

a ~~bus having a~~ plurality of lines;

a first device having a first transmitter to transmit first signals in a first frequency band over one line of the ~~bus~~plurality of lines and having a receiver to receive second signals in a second frequency band over the one line ~~of the bus~~ while first signals are transmitted over the one line ~~of the bus~~, wherein the first transmitter includes an encoder to define at least in part the first frequency band; and

a second device to communicate with the first device over the ~~bus~~plurality of lines, the second device having a second transmitter to transmit second signals in the second frequency band over the one line ~~of the bus~~,

wherein the first frequency band and the second frequency band occupy different portions of a frequency spectrum.

2. (Previously presented) The system of claim 1 wherein the first transmitter includes a filter having a cutoff frequency to define at least in part the first frequency band.

3. (Canceled).

4. (Currently amended) The system of claim ~~3~~1 wherein the encoder has a defined run length.

5. (Currently amended) The system of claim ~~3~~1 wherein the encoder ~~comprises~~is to use a combinational logic table.

6. (Currently amended) ~~The~~A system of ~~claim 1~~ comprising:
a plurality of lines;
a first device having a first transmitter to transmit first signals in a first frequency band over one line of the plurality of lines and having a receiver to receive second signals in a second frequency band over the one line while first signals are transmitted over the one line, wherein the first transmitter and the receiver are part of a single chip; and
a second device to communicate with the first device over the plurality of lines, the second device having a second transmitter to transmit second signals in the second frequency band over the one line,
wherein the first frequency band and the second frequency band occupy different portions of a frequency spectrum.
7. (Original) The system of claim 1 wherein the first frequency band and the second frequency band are fixed.
8. (Currently amended) ~~The~~A system of ~~claim 1~~ comprising:
a plurality of lines;
a first device having a first transmitter to transmit first signals in a first frequency band over one line of the plurality of lines and having a receiver to receive second signals in a second frequency band over the one line while first signals are transmitted over the one line;
a second device to communicate with the first device over the plurality of lines, the second device having a second transmitter to transmit second signals in the second frequency band over the one line; and
a band setting unit to set the first frequency band and the second frequency band in response to an input signal,
wherein the first frequency band and the second frequency band occupy different portions of a frequency spectrum.

9. (Previously presented) The system of claim 8 comprising a user selection device to generate the input signal.
10. (Previously presented) The system of claim 8 comprising a first arbitration module and a second arbitration module to arbitrate between one another to generate the input signal.
11. (Previously presented) The system of claim 1 wherein the first transmitter and the receiver are associated with a microprocessor.
12. (Previously presented) The system of claim 1 wherein the first transmitter and the receiver are associated with a memory storage device.
13. (Previously presented) The system of claim 1 wherein the first transmitter and the receiver are associated with a chipset.
14. (Currently amended) The system of claim 1 wherein:
the first transmitter includes a first output connected to the one line ~~of the bus~~;
the second transmitter includes a second output connected to the one line ~~of the bus~~; and
the receiver includes an input connected to the one line ~~of the bus~~.
15. (Currently amended) A device comprising:
a transmitter to transmit first signals in a first frequency band over one of a plurality of lines ~~of a bus~~ over which the device is to communicate with another device, wherein the transmitter includes an encoder to define at least in part the first frequency band;
a receiver to receive second signals in a second frequency band over the one line ~~of the bus~~ while first signals are transmitted over the one line ~~of the bus~~,
wherein the first frequency band and the second frequency band occupy different portions of a frequency spectrum; and

a functional portion to transmit signals using the transmitter and to receive signals using the receiver.

16. (Previously presented) The device of claim 15 wherein the transmitter includes a filter having a cutoff frequency to define at least in part the first frequency band.

17. (Canceled).

18. (Previously presented) The device of claim 15 wherein the first frequency band and the second frequency band are fixed.

19-26. (Canceled).

27. (Currently amended) A method comprising:

transmitting by a first device first signals in a first frequency band over one of a plurality of lines ~~of a bus~~ over which the first device is to communicate with a second device,

wherein transmitting first signals includes encoding an output to form a first signal in the first frequency band; and

receiving by the first device second signals in a second frequency band over the one line ~~of the bus~~ while first signals are transmitted over the one line ~~of the bus~~,

wherein the first frequency band and the second frequency band occupy different portions of a frequency spectrum.

28. (Canceled).

29. (Currently amended) The method of claim ~~28~~27 wherein transmitting first signals includes encoding an output to form a first signal with a defined run length.

30. (Currently amended) ~~The~~A method of ~~claim 27~~ comprising:
transmitting by a first device first signals in a first frequency band over one of a plurality of lines over which the first device is to communicate with a second device;
receiving by the first device second signals in a second frequency band over the one line while first signals are transmitted over the one line; and
setting the first frequency band and the second frequency band in response to an input signal,
wherein the first frequency band and the second frequency band occupy different portions of a frequency spectrum.
31. (Previously presented) The method of claim 30 wherein the setting comprises arbitrating between the first and second devices.
32. (Previously presented) The method of claim 30 wherein the setting comprises setting the first frequency band by a user.
33. (Previously presented) The method of claim 27 wherein the second device comprises memory and wherein the method comprises:
transmitting a first signal to request data from the memory; and
receiving a second signal to receive requested data from the memory.
34. (Currently amended) The system of claim 1 wherein the second device has a receiver to receive first signals over the one line ~~of the bus~~ while second signals are transmitted over the one line ~~of the bus~~.
35. (Previously presented) The device of claim 15, wherein the functional portion is a processor.

36. (Previously presented) The device of claim 15, wherein the functional portion is memory.

37. (Previously presented) The device of claim 15, wherein the functional portion is a controller for a chipset.

38. (Currently amended) ~~The~~A device of ~~claim 15~~claim 15, comprising:
a transmitter to transmit first signals in a first frequency band over one of a plurality of lines over which the device is to communicate with another device;
a receiver to receive second signals in a second frequency band over the one line while first signals are transmitted over the one line,
wherein the first frequency band and the second frequency band occupy different portions of a frequency spectrum; and
a functional portion to transmit signals using the transmitter and to receive signals using the receiver,
wherein the transmitter, receiver, and functional portion are part of a single chip.

39. (Currently amended) The device of claim ~~47~~15, wherein the encoder has a defined run length.

40. (Currently amended) The device of claim ~~47~~15, wherein the encoder ~~comprises~~is to use a combinational logic table.

41. (Currently amended) ~~The~~A device of ~~claim 15~~claim 15, comprising:
a transmitter to transmit first signals in a first frequency band over one of a plurality of lines over which the device is to communicate with another device;
an arbitration module to set the first frequency band;

a receiver to receive second signals in a second frequency band over the one line while first signals are transmitted over the one line,
wherein the first frequency band and the second frequency band occupy different portions of a frequency spectrum; and
a functional portion to transmit signals using the transmitter and to receive signals using the receiver.

42. (New) The device of claim 38, wherein the transmitter includes an encoder to define at least in part the first frequency band.

43. (New) The device of claim 41, wherein the transmitter includes an encoder to define at least in part the first frequency band.

44. (New) The system of claim 1, wherein the first device has a processor and the second device has volatile memory.